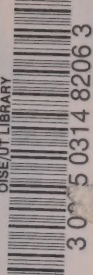
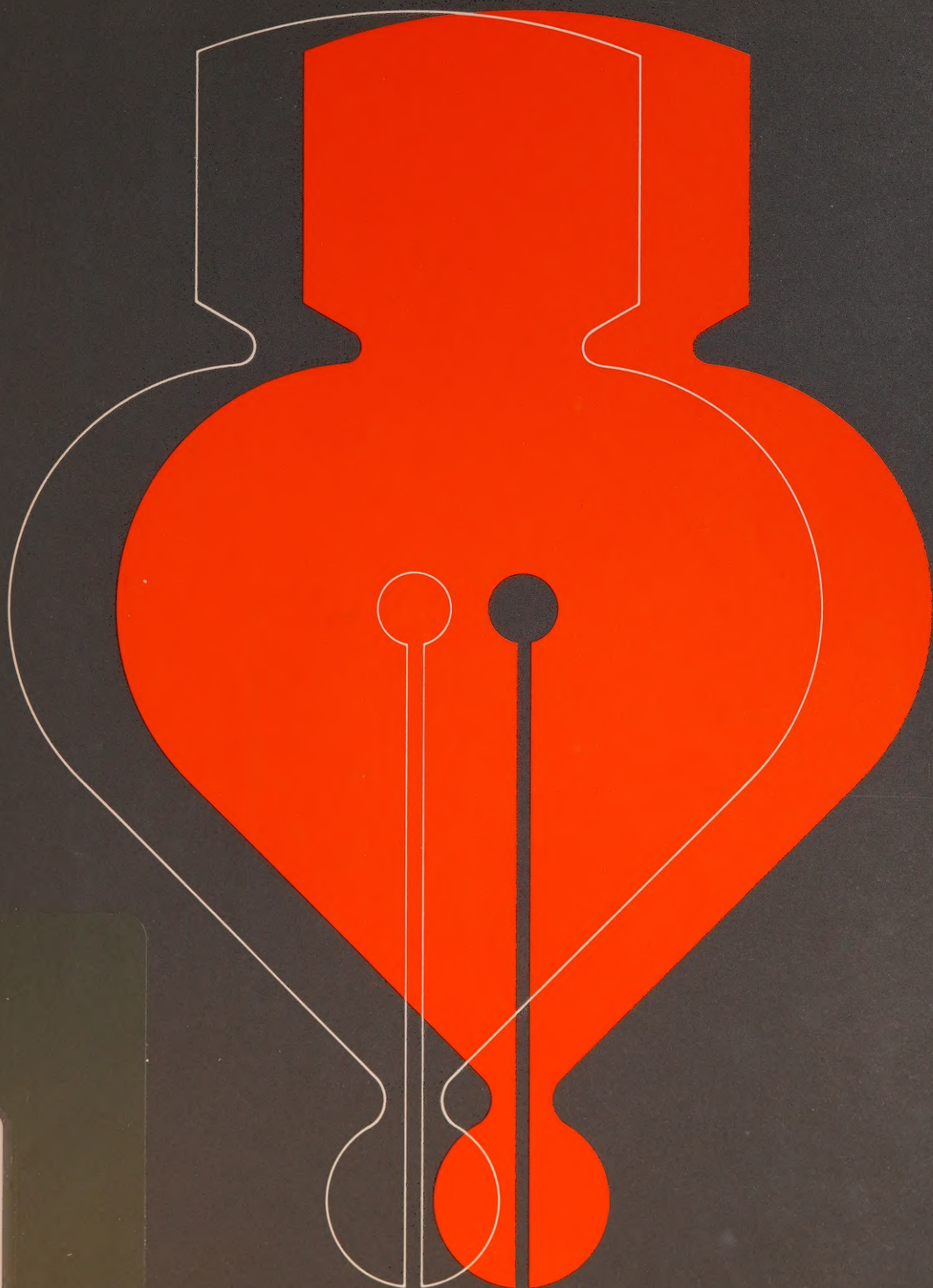


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1973/74 Correspondence Courses



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Ministry
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Education

Ontario

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1973/74 Correspondence Courses

Correspondence Courses,
1152 Bay Street, Toronto M5S 2B5



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Ministry of Education, Ontario

Correspondence Courses,
1152 Bay Street, Toronto M5S 2B5
Chief Educational Officer—J.F. Rees
Educational Officer—H.A. Sutton
Registrar—J.E. Hall
Registration Supervisor—W.A. Redekop
Administrative Officer—C.M. Reside

Secondary School Program Superintendents

B.F. Ahrens—*Mathematics*
A.H. Carter—*Science*
Mrs. M.O. Carter—*Latin and Classical Studies*
Mrs. F. Deciry—*Français*
P.E. De Sadeleer—*Business and Commerce*
Mrs. D.E. Ferguson—*Business and Commerce*
D.A. Kennedy—*French and German*
J.R. Levitt—*Mathematics*
D.J. MacLean—*Technical Subjects*
F.B. MacMillan—*Mathematics*
N.C. McKinnon—*History*
P.B. McLeod—*English*
Mrs. H.I. McSherry—*Science*
Mrs. G.M. Moore—*English*
W.W. O'Rourke—*English*
B.E. Robertson—*Science*
Miss D.P. Rogers—*History*
G.M. Seary—*Arts*
D.A.R. Tolton—*Social Sciences*
J.H. Walker—*Geography*

Elementary School Adviser

Miss E.M. Froud

Telephones

965-2657 General Inquiries
965-4587 Chief Educational Officer and
Educational Officer
965-2657 Registrar

Secondary School Program Superintendents

965-7326 Mathematics, Science, Business, Commerce,
and Technical
965-6448 English, Français, French, German, Latin,
History, Geography, Social Sciences, Arts
965-7456 Elementary School Courses
965-6524 Business Administration
965-7321 Test Arrangements

Secondary School
Courses
General Information

Secondary School Courses

The Ministry of Education correspondence courses provide a way other than school attendance for Ontario residents to continue their education. By this means students may earn admission to an institution of higher learning or course of training, gain promotion where they are employed, qualify for secondary school certificates, or study for personal satisfaction and enjoyment. The program offers courses over a wide range of subjects, including courses in Arts, Business and Commerce, Drafting, English, Français, French, Geography, German, History, Latin and Classical Studies, Mathematics, and Science.

Eligibility for enrolment in a correspondence course

To be eligible for enrolment, an applicant must be a resident of Ontario in one of the following categories:

- a) a person sixteen years of age or over who is not enrolled in a public secondary school
- b) a person who would otherwise be attending school in Ontario and who is prevented from doing so by illness or distance
- c) a person temporarily absent from Ontario (absent for a period not longer than three years)
- d) a Senior Division day-school student of a public secondary school who qualifies for the program outlined under Enrolment of a Day-School Student (see this page)

Note 1: It is policy to require that a student who leaves school before the completion of the final year of his program be out of school three months before his enrolment in Correspondence Courses can be considered. This waiting period can be waived if the principal of the last school attended confirms there is good reason for making an exception to the policy.

Note 2: A temporary visitor to Ontario or a person on a student visa is not eligible for enrolment.

Note 3: An applicant may be requested to show proof that he can be considered a resident of Ontario.

Services Provided

Courses are free. Lessons and supplementary material are provided only to individuals who have applied and are enrolled.

Supplementary material provided includes paper, textbooks for all courses except those at the Year-5 (Grade 13) level, art supplies, science equipment, geological samples, drafting instruments, mathematical instruments, shorthand recordings, French and Latin recordings, supplementary reading books, maps, historical pamphlets, and documents. Students must return textbooks and certain supplies when the courses for which they have been lent are completed.

Starting Date and Completion Date

An eligible student may begin a secondary school course at any time of the year. He may follow his own timetable for completing his assignments. He may achieve standing in a subject and earn a certificate at any time of the year.

Enrolment of a Day-School Student

A student registered in the Senior Division of a public secondary school may be eligible for enrolment in the program offered by the Correspondence Courses Services.

Application Form S is available for a Senior Division student who wishes to apply for admission to this program and will be provided to the student on request. The student will complete the application form and submit it to the principal of his school. If, in the professional judgment of the principal, enrolment is desirable, the principal will support the application with his signature and will also state the reason for the request.

The application is to be forwarded by the principal to the Correspondence Courses Services, 1152 Bay Street, Toronto M5S 2B5.

Approval for enrolment rests with the Chief Educational Officer of the Correspondence Courses Services. If a student is enrolled, future communication will be between the Correspondence Courses Services and the student.

The enrolment of day-school students in the program is experimental during 1973-74. When a student is enrolled in the program, the appropriate director of education and Ministry of Education regional director will be notified.

Advice to Students Who Have an Objective Beyond the Secondary School Level

A student whose objective is to qualify for admission to a post-secondary institution should plan his program of correspondence courses as follows:

1. He should consult officials of that institution to find out what standing or diploma he will require for admission and whether particular subjects are obligatory.

2. He should study the page in this calendar on which are listed the requirements for the standing or diploma he has been advised he must obtain and decide in which subjects he wishes to enrol to complete the requirements.

3. When he knows what subjects his program will include and the highest level of standing he must achieve in these subjects, he can plan his studies. He should request enrolment only in the courses that lead directly to his objective and omit courses that do not. He should enrol at the highest level he can manage in each subject in his program.

The Course Descriptions section of this calendar contains information that will assist him in selecting the appropriate level of enrolment.

Correspondence Courses personnel will be pleased to assist students through a personal interview or telephone conversation or by letter.

As an aid in investigating requirements for certain objectives, six sources are given below.

1. Information about post-secondary school programs in Ontario and requirements for admission to these programs are provided in *Horizons*, an annual publication. A copy may be obtained from the Information Branch, Ministry of Colleges and Universities, Mowat Block, Queen's Park, Toronto M7A 1L8.

2. Some universities have special provisions for the admission of mature students. Mature students who are interested in obtaining this information should direct an enquiry to the university concerned.

3. For information regarding admission to colleges of applied arts and technology, students can refer to *Horizons* or to the annual C.A.A.T. Chart available from the Information Branch of the Ministry of Colleges and Universities. More detailed information may be obtained from registrars of individual colleges.

4. Requirements for admission to a program leading to elementary school teacher certification in Ontario at a teachers' college or in a faculty of education are contained in Ministry of Education memoranda. Copies of memoranda may be obtained from the Publications Office, Ministry of Education, Mowat Block, Queen's Park, Toronto M7A 1L8.

5. Information regarding the requirements for admission either to a program leading to a Registered Nurse's Diploma or to a Registered Nursing Assistant Course may be obtained by writing to the College of Nurses, 600 Eglinton Avenue East, Toronto M4P 1P4.

6. Information regarding apprenticeship programs may be obtained from the Industrial Training Branch, Ministry of Colleges and Universities, Mowat Block, Queen's Park, Toronto M7A 1L8.

An Explanation of the Credit System of Achieving Standing

Since the 1972-1973 school year, all secondary schools in Ontario are organized on the credit system. Under this system a student proceeds by promotion in individual subjects rather than promotion by complete grade, year, or level.

The Correspondence Courses follows this system. Some of the features are:

1. Each student has an individual program. He makes his own selection of courses, basing it on his own interests and objective.
2. Secondary school credits are earned for completion of individual courses.
3. Each school assigns a credit value to each course it offers. (Most correspondence courses have a value of one credit.)
4. The student completes individual courses to accumulate the total number of credits he needs for his objective.
5. New course offerings over a broad range of subjects permit the student greater freedom of choice.
6. Courses with different approaches and of different degrees of difficulty are offered in many subjects. The student may study more than one course of the same year (grade) level in a subject if he chooses.
7. A student may proceed from one year (grade) to another in a subject regardless of his work in other subjects.
8. He may be enrolled simultaneously in different subjects of different years (grades).

Selecting Courses for Study by Correspondence

1. *Subject Selection*—Since each correspondence student plans his own individual program, he bases his selection of subjects on his interests and objectives. If he needs help in making the correct choice for his objective, he is free to consult advisers in the Correspondence Courses office.

2. *Enrolment Level*—Guidance in the selection of appropriate levels of enrolment in courses is provided in the Course Descriptions section of this calendar. When it is felt that success in a course depends on preceding work, a prerequisite

site for enrolment in the course is stated; for example: the prerequisite French F201 is stated for the Year-3 French course F301, which means that a student should have completed the Year-2 French F201 course or its equivalent before enrolling in the French F301. Where no prerequisite is stated in the description of a course, no background work is required for enrolment in it; for example: no prerequisite is stated in the description of the Geography G301 course, which means that a student may enrol in Geography G301 without having taken any previous work in Geography.

Identifying Courses by Code Numbers

Correspondence courses are identified by codes which indicate the year (grade) of a course but do not name a grade. These codes may differ from those in schools.

The Correspondence Courses coding system is as follows:
The code for each course consists of one or two letters followed by three numerals; for example:

English E111
Economics EN400

The letters are an abbreviation of the name of the subject.

In the code E111, E is an abbreviation of English.
In the code EN400, EN is an abbreviation of Economics.

The first numeral of the code represents the year (grade) of a course – first year, second year, third year, fourth year or fifth year – the five years of secondary school. A course with a code number beginning with 1 is a secondary school Year-1 course (formerly Grade 9), a course with a code number beginning with 2 is a Year-2 course (formerly Grade 10), a course with a code number beginning with 3 is a Year-3 course (formerly Grade 11), a course with a code number beginning with 4 is a Year-4 course (formerly Grade 12), and a course with a code number beginning with 5 is a Year-5 course (Grade 13); examples:

English E111 is a secondary school first-year course in English.
English E211 is a secondary school second-year course in English.

The last numeral of the code distinguishes between different courses in the same subject of the same year; for example:

P300 and P301 are different courses in Physics, both Year-3 courses.

The middle numeral is for internal office use and has no significance for students.

Applying for Enrolment in Correspondence Courses

An applicant residing in Ontario should complete Form C and take or mail it to the Correspondence Courses office, together with an official transcript of his school record. While it is sometimes unnecessary and sometimes impossible to come to the office for a personal interview, applicants should bear in mind that a staff of advisers and program superintendents in all subjects are here during office hours to supplement information given in the Correspondence Courses calendar with advice about planning a program that will lead most directly to the student's objective.

An applicant under sixteen years of age prevented from attending school because of illness must submit with his application a medical certificate stating the nature of the illness and the probable length of his absence from school. An applicant under sixteen years of age prevented from attending school because of distance from school must submit a recommendation for enrolment from the senior educational official for the area. No medical certificate or recommendation is required for applicants going outside Canada.

An applicant who will be living outside Ontario temporarily should complete Form F and mail it to the Correspondence Courses office. If he will be living outside Canada, he must give the name and address of a person in Ontario who will assume the responsibility of forwarding books, lessons, and corrected assignments to the student. (The person acting as liaison for a Year-5 student will have the additional responsibility of purchasing the required textbooks.) All material for the student is addressed to the liaison. The applicant should instruct the liaison to rewrap it, print the student's foreign address, prepare a Customs Declaration, and pay the postage to carry the material to its foreign destination by the quickest means. The liaison's return address must appear on the package. Members of the Canadian Forces enrolled while on duty outside Canada may request that their lessons and textbooks be sent to a Canadian Forces Post Office in Canada for forwarding abroad rather than to an Ontario liaison. If possible, an applicant should arrange to visit the Correspondence Courses office before leaving the country, to discuss his program and pick up lessons and textbooks to take with him.

An applicant who is applying for enrolment while registered in the Senior Division of a public secondary school should request Form S, complete it and submit it to his principal.

Enrolment Process

A student's application is carefully considered by a member of the Correspondence Courses staff. If his choice of courses appears to be wise, he is enrolled. If he seems to need advice about the choice, a staff member will communicate with him. A secondary school student must start at the first lesson of a course. Several lessons, textbooks (except for a Year-5 course) and supplies are sent to him at the time of enrol-

ment. Further lessons are supplied automatically as his assignments are submitted to the Correspondence Courses office for evaluation. Students leaving Canada will receive a complete set of lessons for each subject in which they enrol.

Submission, Evaluation and Return of Student's Work

The student should mail each lesson as soon as he completes it and proceed with the next lesson without waiting for the return of marked lessons. Regular, frequent submission of lessons is necessary for satisfactory progress.

Lessons received in the Correspondence Courses office are sent immediately to classroom teachers in the province. After they have been marked and graded, they are returned to the Correspondence Courses and posted to the student as soon as possible, together with the new lessons he requires.

The teachers who evaluate the lessons will make comments to guide students having difficulty, and program superintendents in the office will be pleased to provide assistance and guidance to students who encounter difficulties with assignments.

Re-establishing Enrolment

If correspondence students find it necessary to discontinue a course temporarily, and if the interruption is likely to be shorter than eight weeks, they need not inform the Correspondence Courses office or return the supplies and textbooks. When they are free to continue their studies, they should resume the sending of lesson assignments.

Any student who foresees an interruption in his studies in excess of two months must return textbooks and supplies lent to him. When he is ready to resume his studies, he should telephone or write the Correspondence Courses office to request that supplies be reissued.

Requests for Further Courses

1. After the student has completed a number of assignments he may find that he has time to work on an additional course or courses. He may then request additional courses by letter, by telephone, or by using the student order form supplied with lessons.

2. After a student completes a course, enrolment in further courses is not automatic. It is necessary for him to request enrolment in further courses. He may visit the office for guidance in selecting courses or request assistance by mail.

Requirements for Obtaining Standing in Courses

Standing in any Year-1 or Year-2 course – any course with a code number beginning with either 1 or 2 – is gained through successful completion of all lesson assignments of the course. There are no tests in first- or second-year courses.

For standing in any Year-3, Year-4 or Year-5 course – any course with a code number beginning with 3, 4 or 5 – a student must pass a final supervised test in addition to completing the lesson assignments. The final mark in any third-, fourth- or fifth-year courses is based on the test mark and the average of the marks on lessons. The test may be written at any time of the year, provided the student has successfully completed all lessons of the course.

When a student's last lesson in a Year-3, Year-4 or Year-5 course has been received and graded, the final test is sent out automatically to a supervisor appointed by the Correspondence Courses and living in the student's locality. At that time the student is notified of the mailing, is given the name, address and telephone number of the supervisor, and is asked to communicate with him to arrange a mutually convenient time and place for writing the test. A student may request permission to write final tests at the Correspondence Courses Office, 1152 Bay Street, Toronto.

A student living outside Ontario is asked to nominate a supervisor and submit his name for approval.

Certificates and Diplomas

The following certificates, statements and diplomas are issued to Correspondence Courses students.

1. Certificate of Completion

A certificate is issued automatically upon successful completion of a course.

2. Student Achievement Form (Transcript) and Statement of Standing

A permanent record of students' achievement is kept in Correspondence Courses files. The Registrar of Correspondence Courses will provide a transcript of this record or a Statement of Standing to any student who requests it. The transcript or statement will describe the number of credits satisfactorily completed.

3. Secondary School Graduation Diploma

A student qualifies for the Secondary School Graduation Diploma by completing courses amounting to a total of twenty-seven credits including at least three credits selected from each of the four areas of study described on page 10.

Most correspondence courses have a value of one credit. (The exceptions have a value of one-half credit and are indicated by a code number ending in x.)

Areas of Study

a) *Communications* This area includes the following subjects offered by Correspondence Courses: English, Français, French, German, Latin, Classical Studies, Drafting, Shorthand, Typewriting, Office Procedures.

b) *Social and Environmental Studies* This area includes the following subjects offered by Correspondence Courses: World Politics, Man in Society, History, Economics, Urban Studies, Geography, Marketing, Business Organization and Management, Law, Business Practice.

c) *Pure and Applied Sciences* This area includes the following subjects offered by Correspondence Courses: Mathematics, Business Mathematics, Science, Physics, Chemistry, Biology, Geology, Accounting, Drafting.

d) *Arts* This area includes the following subjects offered by Correspondence Courses: Art, Film Arts, Theatre Arts, Drafting, Readings in Archeology, Readings in Ecology, Readings in Science Fiction, Readings in Wilderness, Readings in Flight, Perspectives of Prose, Creative Writing, Classical Studies.

The diploma requirements are designed to ensure that each student has some experience in each of the four broad areas of knowledge and inquiry while still permitting a substantial degree of specialization if desired. Correspondence Courses students have a great deal of freedom and responsibility in their choice of courses, the year (grade) of the courses, and the number of courses selected in any one subject.

4. Secondary School Honour Graduation Diploma

A Secondary School Honour Graduation Diploma will be granted to a student who has gained six credits for Year-5 courses. Each Year-5 correspondence course has a value of one credit. In other schools credit value may be greater than one if time required for completion is more extensive.

Year-5 courses offered for 1973-1974 by correspondence are:

Art A501
Accountancy Practice AC503
Biology BY501
Chemistry C501
Economics EN501
English E521
English E522
Français f561
French F521
French F522
Geography G503
German GR501
History H501
Latin L521
Latin L522
Mathematics M521 Relations and Functions
Mathematics M522 Calculus
Mathematics M523 Algebra
Mathematics of Investment M511
Physics P501

Note 1: A student may enrol in any Year-5 course for which he has completed the prerequisite, whether or not he has acquired the Secondary School Graduation Diploma.

Note 2: A student may select more than one course in a particular subject area. He should, however, choose carefully in the light of his future plans.

Note 3: Standing obtained in either French or Français, but not both, will be counted. This provision also applies to English and Anglais.

Note 4: A credit obtained in a Year-5 course may be counted towards the Secondary School Honour Graduation Diploma or the Secondary School Graduation Diploma, but not both.

Correspondence Courses Offered 1973-1974

Arts

Art A200–Beginning in Art
Theatre Arts TA300–The Performing Art
Art A301–Through Artists’ Eyes
Art A302x–Prints Without a Press
Art A303x–Art to 1500
Commercial Art CA400x–Art for Commerce and Industry
Film Arts FA400x–The Camera’s Eye
Art A401x–Composing Your Art
Art A402x–Style in Art
Art A403x–Great European Art
Grade 13 Art A501–The Artist’s Study

Business and Commerce

Typewriting I TY100
Typewriting II TY200
Office Procedures I OP300
Office Procedures II OP400
Accounting I AC303
Bookkeeping II BK401
Grade 13 Accountancy Practice AC503
Shorthand I SH300
Shorthand II SH400
Marketing I MK300
Marketing II MK400
Business Organization and Management BO300
Law LW400
Business Practice BP100

Drafting

Drafting D100–Basic Drafting I
Drafting D200x–Basic Drafting II
Drafting D300x–Standard Drafting Practice
Drafting D302x–Introduction to Mechanical Drafting
Drafting D304x–Introduction to Architectural Drafting
Drafting D308x–Introduction to Blueprint Reading

English

English E160
English E111
English E211
English E311
English E421
Grade 13 English E521
Grade 13 English E522

English E302x–Readings in Archaeology
English E304x–Readings in Ecology
English E306x–Readings in Science Fiction
English E402x–Readings in Wilderness
English E404x–Readings in Flight
English E406x–Perspectives of Prose
English E408x–Creative Writing

Français

Français f151
Français f251
Français f351
Français f451
Français f561

French

French F111x
French F101
French F201
French F301
French F401
Grade 13 French F521
Grade 13 French F522

Geography

Geography G101
Geography G201
Geography G300
Geography G301
Geography G311x–Fundamentals of Physical Geography
Geography G400
Geography G401
Urban Studies G403
Grade 13 Geography G503

German

Grade 13 German GR501

History and Social Science

History H200
History H201
History H203x
History H205x
World Politics WP300
History H301
History H305 (available January 1974)
Man in Society MS400
Economics EN400
History H401
Grade 13 History H501
Grade 13 Economics EN501

Latin

Latin L201
Latin L301
Classical Studies L312x
Latin L401
Grade 13 Latin L521
Grade 13 Latin L522

Mathematics*Series A*

Mathematics M111x
Mathematics M101
Mathematics M201
Mathematics M303
Mathematics M403
Grade 13 Mathematics M511–Mathematics of Investment
Grade 13 Mathematics M521–Relations and Functions
Grade 13 Mathematics M522–Calculus
Grade 13 Mathematics M523–Algebra

Series B

Mathematics M100
Mathematics M200
Mathematics M300
Mathematics M400
Grade 13 Mathematics M511–Mathematics of Investment
Grade 13 Mathematics M522–Calculus

Series C

Mathematics M160
Mathematics M250
Mathematics M350
Mathematics M450

Science

Science SC101
Science SC201
Science SC203
Geology GL300
Physics P300
Physics P301
Grade 13 Physics P501
Chemistry C400
Chemistry C401
Grade 13 Chemistry C501
Biology BY400
Grade 13 Biology BY501

Secondary School Courses Course Descriptions

Arts Courses

The following courses are offered:

Art A200–Beginning in Art

Theatre Arts TA300–The Performing Art

Art A301–Through Artists’ Eyes

Art A302x–Prints Without a Press

Art A303x–Art to 1500

Commercial Art CA400x–Art for Commerce and Industry

Film Arts FA400x–The Camera’s Eye

Art A401x–Composing Your Art

Art A402x–Style in Art

Art A403x–Great European Art

Grade 13 Art A501–The Artist’s Study

Art A200 Beginning in Art

This practical course presents the visual and compositional elements that are fundamental to all forms of art. In the second half of the course these elements and principles of design are used to create art works of various kinds. Each of these is examined briefly by means of a written explanation followed by practical projects. This is a course for students with little previous practical experience in art. A basic art kit is supplied.

No prerequisite

Theatre Arts TA300 The Performing Art

This course teaches the basic movements used in acting and examines the history of drama, characterization, mood and feeling, and such production concerns as stage designs, set designs, costumes, lighting, and sound effects. Its aim is to make the student more aware of himself, to make him a more sensitive viewer of drama, and to encourage him to participate in dramatic productions. A text is lent to the student.

No prerequisite

Art A301 Through Artists’ Eyes

This comprehensive course delves deeply into many phases of the visual arts. Although some practical projects are included, its main purpose is to broaden the student’s knowledge of the part art plays in our lives and increase his sensitivity to the world of the arts. Graphics, drawing and

painting, history, photography, television, commercial and industrial art are just a few of the topics covered in a course that ranges from the way to look at a painting to architectural technology. There is no text, but a book of reproductions is lent to students taking this course.

No prerequisite

Art A302x Prints Without a Press

Printing consists of any of several means artists and artisans use to duplicate an image. Manual techniques of printmaking have been a means of creative expression for centuries. In this course the student is taught some of the basic principles of hand-printmaking as an art form. It is an elementary course that introduces such simple techniques as monoprints, stencils, cardboard cuts and lino cuts, and suggests various practical uses for the prints made. A printmaking kit is supplied.

Prerequisite: a previous course in Art

Art A303x Art to 1500

Here is the story of cave paintings and pyramids, of Minoan palaces and Greek temples. Roman engineering and Byzantine mosaics are discussed. Medieval manuscript illuminations are studied and the course ends with a description of the art of the Gothic era. An art text is lent to students.

No prerequisite

Commercial Art CA400x Art for Commerce and Industry

This practical ten-lesson course approaches art from a technical point of view and introduces the student to the aims and methods of the commercial artist. It should help him to decide whether he would like to take intensive training in art, but does not by itself train a student to be a commercial artist.

Prerequisite: a previous course in Art

Film Arts FA400x The Camera's Eye

This course introduces the twin subjects of still photography and movies. The stress is on the practical rather than the theoretical. The student is encouraged by means of projects to develop his own skills as a photographer, and for this reason must provide his own still camera and film. The course seeks to develop interest and give new insights and directions to explore. A portfolio of photographs is lent to the student.

No prerequisite

Art A401x Composing Your Art

This course stresses the question of composition in art, examining such factors as balance, rhythm, and focal point. It is a course in drawing and painting which considers art as a means for self-expression. Its purpose is to develop the student's potential to become a creative artist. An art kit is supplied.

Prerequisite: a previous course in Art

Art A402x Style in Art

In this course the student carries out a series of practical projects that are designed to make him more aware of the significance of style in art and to help him develop his own distinctive style. An art kit and a book of reproductions are lent to the student.

Prerequisite: a previous course in Art

Art A403x Great European Art

This course is introduced by a discussion of the language of art which gives the student a sound basis for judging the merits of art masterpieces discussed in later lessons. Paintings by such famous artists as Raphael, Leonardo and Rembrandt, sculptures by Michelangelo and Bernini, architecture by Sir Christopher Wren, woodcuts by Albrecht Durer – these are some of the topics in a course that covers the full sweep of Renaissance and Baroque art history. A book of reproductions is lent with this course.

No prerequisite

Grade 13 Art A501 The Artist's Study

This Year-5 course combines history of art and practical art. The art history deals with the period from 1800 to the present. The practical projects concentrate on drawing and painting. Students are encouraged to develop their own solutions to the problems presented, in consultation with their teacher.

Prerequisite: at least two Year-3 or Year-4 correspondence courses in Art, or equivalent

The text upon which the history of art section is based is *Art and Man*, Book 3, Holt, Rinehart and Winston, \$5.50.

The following twenty-lesson courses are offered.

When a course is preceded by an arrow, the course to the left, or an equivalent course, is the prerequisite.

When a course is not preceded by an arrow, there is no prerequisite.

Grade 13
Accountancy Practice
AC503

Typewriting I TY100

This introductory course provides a student with sufficient background in typing for personal use, together with a sound foundation for further development of the skill. (The student must provide his own typewriter.) Throughout the course considerable stress is placed on the development of correct techniques for touch typing. The topics covered include the set-up and placement of material, composing at the typewriter, simple tabulation, personal letters, and basic business letters.

No prerequisite

Typewriting II TY200

This course is designed to develop and expand the skills in Typewriting I TY100. (The student must provide his own typewriter.) It reviews the basic skills and includes advanced tabulation, business letters, business forms, and duplicating methods. There is also considerable practice in composing at the typewriter and sustained copy typing. A student who completes this basic business typing course should be able to fill the position of junior typist in a business office.

Prerequisite: Typewriting I TY100, or equivalent

Office Procedures I OP300

This course covers basic office procedures and assists the student to improve his typing skill. (The student must supply his own typewriter.) The topics include methods of processing data, principles of filing, transportation services, postal facilities, legal forms, duplicating equipment and financial statements.

Prerequisite: Typewriting II TY200, or equivalent

Office Procedures II OP400

This course provides further development of typing skill and additional information on modern office procedures. It deals with secretarial techniques, business equipment, legal forms and documents, manuscripts, itineraries, and filing systems.

Prerequisite: Office Procedures I OP300, or equivalent

Accounting I AC303

This is an introductory course in accounting. Basic principles, concepts, and procedures of accounting and bookkeeping are presented. In addition to these principles, the basic use of flow charts with special application to business systems and procedures is taught.

No prerequisite

Bookkeeping II BK401

This course is designed to expand the knowledge of double-entry bookkeeping as applied to drafts, bank reconciliation, adjustments, classification and analysis of financial statements, partnerships, payroll records, voucher systems, and non-trading organizations. A student who completes it should be able to maintain a set of books for a small business or fill a junior bookkeeper's position.

Prerequisite: Accounting I AC303

Grade 13 Accountancy Practice AC503

This course teaches Canadian accounting practices. It begins with a study of some of the fundamental bookkeeping principles and develops into a detailed study of accounting procedures for a proprietorship, for a partnership, and for a limited company. Specialized procedures, such as the handling of manufacturing or departmental accounts, are studied. Considerable emphasis is placed on the theory behind accounting systems and on the accountant's use of the data supplied by each system. The course does not prepare a person to be a professional accountant; for that objective, study with a professional accounting society is required.

No prerequisite

The text is *Canadian Accounting Practice*, 2nd ed. (Leonard and Beard), McGraw-Hill Ryerson, \$8.95.

Shorthand I SH300

This introductory course in Pitman shorthand covers the work in *The New Basic Course in Pitman Shorthand*, with additional transcription material supplied in the lessons. Controlled dictation is provided by means of records. The student must be able to obtain a record player capable of playing the 45 r.p.m. records that are supplied. As stenographic work requires a good background in English and typing, a student should have completed several courses in the former and at least an introductory typing course before requesting enrolment. Completion of this course provides a sound foundation for Shorthand II SH400.

Shorthand II SH400

This advanced course in shorthand is primarily a dictation and transcription course, designed to increase a student's speed in taking dictation and in producing an accurate and attractive transcript at the typewriter. Controlled dictation is provided by means of records, and the student must be able to obtain a record player capable of playing both 45 and 33 1/3 r.p.m. records. The text is *Pitman's Shorthand Dictation and Transcription*. A student who has completed this course should be qualified for a position as a junior stenographer in a business office.

Prerequisite: Shorthand I SH300 and Typewriting II TY200, or equivalent

Marketing I MK300

This introductory course in marketing, written with the consumer's point of view in mind, gives the student an understanding of the various aspects of marketing, with emphasis on retail merchandising. It begins with an examination of retailing in general and then looks at the different types of stores in operation, such as the department store and discount store. The mechanics and complexities of establishing and operating a retail store are outlined under such topics as: types of store ownership, selection of location, selection of store equipment, merchandise purchasing, and pricing policies. The course concludes with a brief study of salesmanship. When the student has completed the course, he should have a better understanding of retailing and be a more careful shopper.

No prerequisite

Marketing II MK400

This course is designed to give the student an understanding of sales promotion and advertising. It relates marketing to the total economy. It covers such topics as: market research, consumer demands, advertising media, trademarks, packaging, and sales promotion. When the student has completed this course, he should be better able to recognize excellence in marketing.

No prerequisite

Business Organization and Management BO300

This introductory course is a study of the world of business. It examines the way in which businesses are owned, organized, and managed. The different forms of business ownership are studied, with emphasis on the corporate form and an examination of the problems of large corporations. The effects on business of the activities of the three levels of government are examined. The second half of the course involves a specific study of business operations—how a business is organized in preparation for production, and the complexities of the actual production process. Departments that exist in a large business, such as the finance department and the personnel department, are discussed. (The course is not intended to qualify the student as a business administrator or manager; it is designed to develop an understanding of the complexities of the business world.)

No prerequisite

Law LW400

This course is an introduction to Canadian law as it applies to ordinary business and private affairs. The student gains some knowledge of his legal rights and obligations, and learns to recognize situations in which he should obtain professional legal advice. The course does not prepare him to handle legal affairs. It begins with a brief consideration of the origins of law, classes of law, and the administration of law and develops as a concentrated study of personal law, with emphasis on the laws of contracts, negotiable instruments, employment, and sales.

No prerequisite

Business Practice BP100

The object of this course is to give the student some basic knowledge of modern business practices and papers so that he may carry out common business transactions. It is an elementary course dealing with business procedures as they apply to a student's personal, social, and business life.

No prerequisite

Drafting Courses

The following courses are offered:

Drafting D100–Basic Drafting I
Drafting D200x–Basic Drafting II
Drafting D300x–Standard Drafting Practice
Drafting D302x–Introduction to Mechanical Drafting
Drafting D304x–Introduction to Architectural Drafting
Drafting D308x– Introduction to Blueprint Reading

A student without previous knowledge of drafting will begin study of the subject by completing the first-year course Drafting D100 followed by the second-year course Drafting D200x. In these two courses he will learn basic techniques and prepare for the study of drafting specialties in third- and fourth-year courses.

For mature students who have acquired some previous knowledge of drafting, either in industry or at school, the third-year Drafting D300x will provide a review of basic techniques in preparation for further third-year courses and for fourth-year courses.

Drafting D100 Basic Drafting I

This course, designed for a student without previous knowledge of technical drawing, deals with fundamental drafting procedures, the use of simple drafting equipment, and special drawing techniques. Some of the topics are: simple and multi-view drawings, theory of shape description, orthographic projection dimensioning, blueprint reading, isometric drawings, sections, pictorial views, and freehand sketching. This course is made up of ten units of instruction and twenty student assignments.

No prerequisite

Drafting D200x Basic Drafting II

This course continues the study of fundamentals begun in Drafting D100. The student is introduced to the various drafting specialties which he may elect to study in third- and fourth-year courses.

Prerequisite: Drafting D100, or equivalent

Drafting D300x Standard Drafting Practice

This course is designed for students who have acquired some knowledge of basic drafting techniques, either through industrial experience or at school, and who wish review before proceeding to courses specializing in mechanical drafting, architectural drafting, or electrical drafting. It is recommended that an applicant have at least two years of secondary school Mathematics. Through a series of practical projects and problems, the student's drafting skills and

problem-solving abilities are developed. Some of the topics covered are: drafting as a graphic language, orthographic projection, lettering and dimensioning, section drawings, conventional representation, auxiliary views, pictorial drawings, and assembly drawings.

Prerequisite: Drafting D200x or industrial experience

Drafting D302x Introduction to Mechanical Drafting

This course is for students who wish to study the principles and techniques employed in the drawing of machines and their component parts. Some of the topics covered are: detail and assembly drawings, surface finish, casting design, geometric construction, cams and linkages, pictorial drawings, and the drawing of fabricated parts.

Prerequisite: Drafting D200x or Drafting D300x, or equivalent of either

Drafting D304x Introduction to Architectural Drafting

This course is for students who wish to study the principles and techniques employed in architectural drafting and design. Some of the topics covered are: principles of design, plan selection, presentation drawings, layout and working drawings, elementary study of building materials and methods.

Prerequisite: Drafting D200x or Drafting D300x, or equivalent of either

Drafting D308x Introduction to Blueprint Reading

This course is for students who have no previous knowledge or training in the reading of engineering drawings. The course consists of ten units of instruction, blueprint-reading assignments, and a final supervised test. Some of the topics covered are: third angle projections, angular dimensions, scale drawings, tolerances and allowances, steel specifications and casting designs.

No prerequisite

English Courses

The following twenty-lesson courses are offered:

English E160

English E111

English E211

English E311

English E421

Grade 13 English E521

Grade 13 English E522–Canadian Studies

The following ten-lesson, third- and fourth-year courses are offered:

English E302x–Readings in Archaeology

English E304x–Readings in Ecology

English E306x–Readings in Science Fiction

English E402x–Readings in Wilderness

English E404x–Readings in Flight

English E406x–Perspectives of Prose

English E408x–Creative Writing

A mature student who has been active in the business world or has read widely should be capable of working successfully in a third-year course in English. Even if he has done no formal work in first- or second-year English in secondary school, he may request enrolment in the course in English E311 or in any of the ten-lesson courses.

English E160

This is a basic course in English grammar and composition. It makes use of a variety of textbooks, including a speller, a novel, and language workbooks. Vocabulary study through the use of a dictionary is emphasized.

No prerequisite

English E111

Exciting stories in *Great Tales of Action and Adventure*, *The Cruel Sea*, and *Fahrenheit 451* form the bulk of the prose reading for this course. These works are more than tense plots: the authors have developed “philosophies” of significant personal and social values. A variety of stimulating plays and poetry selections are included in the literature section. Thought-provoking questions and creative writing assignments are designed to improve the students’s ability to communicate clearly. The course lays a foundation for high-school English.

English E211

Appeal to a wide variety of interests has been a guiding principle in the choice of literature selections for this twenty-lesson, second-year course. One novel, *Pied Piper*, is set in France in 1940 and the other, *The Chrysalids*, is a projection into the future—the possible outcome of a nuclear

catastrophe. Short stories of suspense, mystery, and humour, an interesting selection of poetry from past to present, and plays set in Ancient Greece, France, and the United States have been included to stimulate the imagination. The language section of the course teaches the fundamentals of good writing in a simple, straightforward manner.

English E311

A varied program . . .

Enjoy exploring the world of mass media with special reference to print, film, and television. Express your own ideas in the lively discussion based on the contemporary novel, *To Kill a Mockingbird*. Choose either a group of short, recently written plays or a modern approach to *Romeo and Juliet*; have a brief look at the theatre in Canada. Learn to write effective social and business letters and to develop your ability in creative writing.

English E421

To develop critical awareness of human relationships and to improve skills in literary criticism and writing are the general aims of this fourth-year course. The reading is varied—short stories and essays, short and longer poems, one-act and full-length dramas, the short and the full-length novel. Among the interesting works for study are such well-known titles as *Miss Julie* (Strindberg), *The Pearl* (Steinbeck), *Macbeth* (Shakespeare), *Death of a Salesman* (Arthur Miller)—the last two offered as alternatives— and *Sons and Lovers* (D. H. Lawrence). The treatment given these literary works is designed to help the student to read and think critically and to write with interest and with insight. English E421 will fully serve both the student who intends to end his studies in English in Year-4 and the student who plans to go on to Grade 13 or to post-secondary education.

Grade 13 English E521

A revised and up-dated course with a light look . . . For any student in Year-5, here is an interesting and valuable course. The study of fine literature gives each student an opportunity to evaluate, to compare, to express his own ideas, and to develop his writing skills. For additional enjoyment in reading, copies of contemporary novels are available for borrowing. Required texts are:

An Anthology of Verse (Charlesworth and Lee), Oxford University Press, \$2.95

Techniques of Good Writing (Ford), Book Society of Canada, \$4.25

Hamlet – Falcon Edition (Shakespeare), Longman Canada, \$2.25

A Farewell to Arms (Hemingway), School Book Fairs, \$2.95

Madwoman of Chaillot (Giraudoux), McGraw-Hill Ryerson, \$1.70

Grade 13 English E522 Canadian Studies

What is a Canadian? What do we think of our country? What is it like to be born in this land or to come to it as a new Canadian? How have our best writers answered these questions? Callaghan, Atwood, Roy, and Richler are among the prize-winning authors whose works bring into sharp and entertaining focus the Canadian experience. The student will meet them, together with a host of other Canadian writers in a course designed for the reader who wants to know more about our country's literary heritage. Basic texts for the course are:

Canadian Literature (Mickleburgh), McClelland & Stewart, \$3.95

Poets of Contemporary Canada (Mandel), McClelland & Stewart, \$2.95

English E302x Readings in Archaeology

This course consists of readings, in prose and poetry, on the theme of archaeology. The course is recommended for mature students who have a particular interest in past civilizations and archaeological discoveries. Three main civilizations are examined: the Minoan Crete, the Mayan, and the Viking. Writing skills are developed.

English E304x Readings in Ecology

Man's vital need to live in harmony with his environment is the theme of this course of readings on overpopulation, pollution, and the wastage of our natural resources. The student develops writing skills through assignments that encourage him to express his opinions on these vital issues.

English E306x Readings in Science Fiction

This course presents a lively survey of science fiction from Jules Verne to Arthur C. Clarke, concentrating on such modern works as Clarke's *2001: A Space Odyssey* and Ray Bradbury's *Fahrenheit 451*. These works, which are a unique blend of thought-provoking themes and projections into the future, provide the basis for a study of literary forms and the exercise of good writing skills.

English E402x Readings in Wilderness

Is our wilderness truly a dwindling heritage? If so, why is it being diminished, and by whom? Should we try to save some of it? How? Some of the answers that men and women of various times and places have suggested to these vital questions are presented in this course of prose and poetry readings. Students are encouraged in self-expression.

English E404x Readings in Flight

From Leonardo Da Vinci's Flying Machine (1452) to the moon-walk, this ten-lesson course chronicles man's adventures in flight. First-person accounts by early flyers and illustrations of aircraft supplement the exciting novels in the course. The readings serve as a stimulus to the development of writing skills.

English E406x Perspectives of Prose

Have you ever been stirred by reading a dynamic or intellectually stimulating article and wondered how its effect was achieved? This ten-lesson course examines the perspectives from which some important figures view various aspects of our contemporary world, what they say and how they say it, in essays, radio talks, newspaper columns, or literary studies. Northrop Frye, Robert Graves, E. M. Forster, Arnold Toynbee, Joseph Wood Krutch, Archibald MacLeish and John Ciardi are among the academically prominent whose works are considered. The course gives the student perspective as he considers the skills of the writer's art and learns to read with understanding and relish. The lessons challenge the student's critical ability and develop an awareness of creative give-and-take between writer and reader.

English E408x Creative Writing

If you have the urge to write or are interested in examining writing techniques or in improving your style, the models and assignments in this course will be useful to you. While the course has been structured to meet several kinds of writing needs and to develop certain writing skills, the creative writing assignment in each lesson offers scope for personal expression. In addition, reading selections included to help you appreciate various writing styles may extend your reading interests. English E408x will give you the opportunity to increase your pleasure in reading, to exercise your thoughts and imagination, and to bring force and clarity to your writing.

Cours de français

Les cours de français destinés aux étudiants francophones comprennent vingt leçons chacun et correspondent aux cours du programme avancé.

La liste comprend les cours suivants:

Français f151
Français f251
Français f351
Français f451
Français f561

Français f151

Ce cours s'adresse aux élèves qui ont complété le programme de la huitième année du cours élémentaire en langue française, ou l'équivalent. Chacune des vingt leçons de ce cours se développe autour d'un thème, la composition et la grammaire s'y rapportant directement. La partie littérature permettra aux élèves de faire connaissance avec les grands auteurs des littératures française et canadienne-française. Le programme offre l'étude des ouvrages suivants: *Lettres de mon moulin* (Daudet), *Le Lion* (Kessel), *Le Voyage de M. Perrichon* (Labiche). Ce cours donne aux élèves la préparation nécessaire au cours de français f251. Les élèves de langue anglaise qui lisent, écrivent et parlent couramment le français au niveau de la huitième année peuvent s'inscrire à ce cours s'ils le désirent.

Français f251

Ce cours s'adresse aux élèves qui ont complété le cours de français f151 ou l'équivalent. Outre l'étude de nombreux morceaux choisis de prose et de poésie des littératures française et canadienne-française, le programme offre l'étude des ouvrages suivants: *Maria Chapdelaine* (Hémon), *Contes du lundi* (Daudet), *Il ne faut jurer de rien* (Musset). Ce cours donne aux élèves la préparation nécessaire au cours de français f351.

Français f351

Ce cours s'adresse aux élèves qui ont complété le cours de français f251 ou l'équivalent. Outre l'étude de nombreux morceaux choisis de prose et de poésie des littératures française et canadienne-française, le programme offre l'étude des ouvrages suivants: *L'Avare* (Molière), *Le Grand Meaulnes* (Fournier), *Zone* (Dubé). Ce cours donne aux élèves la préparation nécessaire au cours de français f451.

Français f451

Ce cours s'adresse aux élèves qui ont complété le cours de français f351 ou l'équivalent. Chacune des vingt leçons de ce cours comprend deux parties: A—Etude de textes, B—Etude de la langue et de ses éléments. Outre l'étude de nombreux morceaux choisis de prose et de poésie des littératures française et canadienne-française, le programme offre l'étude des ouvrages suivants: *Le Cid* (Corneille), *Cyrano de Bergerac* (Rostand), *Vol de nuit* (Saint-Exupéry). Ce cours donne aux élèves la préparation nécessaire au cours de français f561.

Français f561

Ce cours s'adresse aux élèves qui ont complété le cours de français f451 ou l'équivalent. Le programme offre l'étude d'ouvrages classiques et modernes comprenant des pièces de théâtre: *Andromaque* (Racine), *Topaze* (Pagnol), des romans: *Les Saints vont en enfer* (Cesbron), *Rue Deschambault* (Gabrielle Roy) et des morceaux choisis de prose et de poésie. La partie Etude de la Langue offre l'étude de la syntaxe et quelques notions de phonétique. L'élève acquerra la maîtrise de la langue parlée et écrite comme instrument de communication, avantage appréciable tant au point de vue professionnel que culturel. Les manuels à l'étude sont les suivants:

Andromaque (Racine), Les Petits Classiques Bordas, \$.75
Topaze (Pagnol), Livre de Poche no 294, \$1.80
Les Saints vont en enfer (Cesbron), Livre de Poche no 2301-02, \$1.80
Rue Deschambault (Gabrielle Roy), Edition ordinaire, \$3.25
Initiation à la phonétique (R. Bergeron), \$1.80
Précis de grammaire française (Grévisse), \$2.75

Vous trouverez, sans doute, les manuels ci-dessus mentionnés dans une librairie de votre localité. Cependant, au cas où vous auriez de la difficulté à vous les procurer, ils peuvent s'obtenir à l'adresse suivante: Le coin du livre, 263 rue Dalhousie, Ottawa, Ont., K1N 7E3. Ayez soin de vous procurer les éditions indiquées ci-dessus afin de pouvoir vous reporter aux références mentionnées dans le cours.

French Courses

These courses are designed principally for students whose first language is English and who wish to begin or continue their study of French as a second language.

The following twenty-lesson courses are offered:

French F101
French F201
French F301
French F401
Grade 13 French F521
Grade 13 French F522

The following ten-lesson course is offered: F111x

French F111x

Many adults wishing to take up work in French have completed at least two years of formal study in French in secondary school or have studied in another system. Such a student often has forgotten vocabulary and elementary grammar but could recall the essentials through a short review. Instead of working through the forty lessons of F101 and F201, he may take this ten-lesson refresher course based on the textbook *Premières Années de Français*. This course enables the student to proceed to French F301 or to French F401 if he already has the equivalent of F301.

French F101

This course is designed for students who have had no formal training in French and who wish to establish the basis for further study of French. The textbook used is *Premières Années de Français*. Records for help with the spoken language are supplied.

French F201

This course continues the study begun in French F101 and completes the textbook *Premières Années de Français*. Simple authors texts are included in the course. Practice in oral work is continued.

Prerequisite: French F101, or equivalent

French F301

This course covers Lessons 1 to 12 in the textbook *Cours Moyen, Part I*. An authors text is assigned for intensive reading and two easy texts for reading for comprehension. Practice in conversational French is conducted through records lent to the student.

Prerequisite: French F201, or equivalent

French F401

Lessons 13 to 26, *Cours Moyen, Part I*, are covered in this course. One text is assigned for intensive reading and one for extensive reading for comprehension. Additional reading

is recommended. Exercises in oral comprehension and conversational French are provided through a series of records supplied with the lessons.

Prerequisite: French F301, or equivalent

Grade 13 French F521

This course in advanced French combines authors (short stories and a modern play) and composition (explanation, study, and drill) in alternating lessons. It includes sight reading and provides practice in the spoken language through the use of records.

Prerequisite: French F401, or equivalent

The texts are: *Cours Moyen, Part I* (Jeanneret, Hislop and Lake), Clarke, Irwin, \$3.95

Cours Moyen, Part II (Jeanneret, Hislop and Lake), Clarke, Irwin, \$3.95

Contes Choisis de Guy de Maupassant, C.I. Edition, Clarke, Irwin, \$1.80

Hier, les enfants dansaient (Gratien Gélinas), collection Théâtre Canadien, Hachette Libraries, \$2.95

Grade 13 French F522

This enrichment course should appeal especially to students who intend to continue their study of French beyond secondary school. It presupposes mastery of secondary school French grammar and composition. It provides guidance in the appreciation and critical study of French literature and stresses the development of good style in writing French. It includes records for practice in the spoken language. Students may study French F521 and French F522 concurrently.

Prerequisite: French F401, or equivalent

The texts are: *Rue Deschambault* (Roy), University of Toronto Bookstore, \$3.55

Le Bourgeois Gentilhomme (Molière), Copp Clark, \$1.95
Tartuffe (Molière), Edition Bordas, University of Toronto Bookstore, \$.75

French for Oral and Written Review (Carlut-Meiden), Holt, Rinehart and Winston, \$7.65 (hard cover), \$6.05 (paper)

Geography Courses

The following twenty-lesson courses are offered:

Geography G101
Geography G201
Geography G300
Geography G301
Geography G400
Geography G401
Urban Studies G403
Grade 13 Geography G503

The following ten-lesson third-year course is offered:
Geography G311x—Fundamentals of Physical Geography

A mature student may request enrolment in any of the third- or fourth-year courses, even if he has done no work in first- or second-year Geography.

Geography G101

This course focuses on Australia and New Zealand, Antarctica, Africa, and the British Isles. Land forms, agriculture, vegetation, climate, manufacturing, and indigenous populations are all examined. The course provides a survey of contrasting modes of living. The texts are *The Canadian Oxford School Atlas* and *Lands Overseas*.

No prerequisite

Geography G201

This course examines the two continents of Europe and Asia. These are combined into one large area, Eurasia, principally because the most important nation under study, the Union of the Soviet Socialist Republics, stretches across both continents. The populations and topographies of individual European and Asiatic countries are examined separately and in detail. The course seeks to foster a sympathetic understanding of problems which may often seem remote to Canadians. A newly revised text with coloured maps and illustrations helps to make this an interesting and up-to-date course. Illustrative material will also be provided with many lessons. The texts are *The Canadian Oxford School Atlas* and *Through Europe and Asia* (Revised Edition).

No prerequisite

Geography G300

This course, subtitled *North American Regional Studies*, places major emphasis on the various geographic regions of Canada and their economic interdependence. However, the influence of geographic factors on the economic relationship of Canada and the United States forms an important part of the material of the course. In addition, regional and local topics such as land-use methods, forestry procedures, tourism, life in the Arctic, and resources are studied. The texts are *The Canadian Oxford School Atlas* and *Lands of Change*.

No prerequisite

Geography G301

This course divides the study of geography into two areas: Physical Geography and Human Geography. Map reading, the examination of aerial photographs, the nature of various terrains to be found on the earth, and weather and climate are all parts of Physical Geography. This section contains much information of a technical nature. Human Geography examines the way in which man adjusts to his environment and uses available resources. Problems of rural and urban development are examined in this section of the course. The texts are *The Canadian Oxford School Atlas*, *Geographic Fundamentals*, and *Land, Climate and Man*.

No prerequisite

Geography G311x Fundamentals of Physical Geography

This course is designed to provide, in ten lessons, geographic skills and knowledge necessary for more advanced geography courses, including G503. Special attention is given to the reading and interpretation of topographic maps and air photographs. Terms used in geographic analysis are discussed and explained. Other topics included are: earth

German Course

structure, rock structure, continental drift, land forms created by running water and by wind, elements of climate, climatic classification, natural vegetation, and soils. The texts are *Physical Geography* and *Every Square Inch*.

No prerequisite

Geography G400

The prime concern of this course, subtitled *Environmental Studies*, is the importance of the conservation of natural resources. Soils, forests, lakes and rivers, minerals, and wildlife are all considered vital resources for the continuation of life. The methods by which man may use wisely and renew the resources of his environment are closely examined. In addition to these topics, the lessons of this course require students to work with topographical maps and weather maps. The texts are *The Canadian Oxford School Atlas* and *Landscapes of the World*.

No prerequisite

Geography G401

This Year-4 course requires knowledge of the fundamentals of both Physical and Human Geography. It examines such problems as political boundaries, overpopulation, and the relationship between a metropolis and its rural surroundings. Selected areas in the United States, Europe, and Asia and related topographic maps and aerial photographs are examined. The texts are *The Canadian Oxford School Atlas* and *Selected Studies in Regional Geography*.

Urban Studies G403

This course examines some of the causes and consequences of the modern urban movement as well as the nature of cities, which for most of us have become the home environment. This is an Urban Studies course designed for Canadians and references are made to various Canadian cities as examples throughout the course. Units I and II introduce the topics and problems of urbanization. Unit III examines the smaller settlements of southern Ontario, while Unit IV is a study of Toronto as an example of a large urban area. The last lesson of the course provides the student with an opportunity to examine his local area or to do research on the Mid-Canada Development Corridor. The texts are *Urban Prospects*, *Patterns of Settlement in Southern Ontario*, and *Toronto: An Urban Study*.

Grade 13 Geography G503

Canada's geography is a dynamic one. In less than a generation Canada has been transformed from a country of

farmers, miners, fishermen, and woodsmen to one where urbanization and industrialization occupy key positions in our present economy and in our future prosperity. Yet Canada is a diverse nation with many different regions, each with its own distinctive characteristics and problems. It is the intention of this course to involve the student in a deeper understanding of Canada and its operation as a collection of regions which together make up this country. Resources for study include a recent text, a book of readings, and numerous up-to-date references, together with air photographs and topographic maps.

Prerequisite: Geography G301 or Geography G311x, or equivalent

The texts are: *Canada: A Regional Analysis* (Putnam and Putnam), J.M. Dent and Sons, \$7.50
Readings in Canadian Geography (Irving), Holt, Rinehart and Winston, \$5.50

Grade 13 German GR501

This course in advanced German is designed to present a balanced program of language skills. The main stress of the course will be on senior grammar study and on reading and writing modern German. Reading materials include social and cultural topics important in post-war Germany. The student will have the opportunity to work with records and cassettes to develop ability with the spoken language.

The texts are: *A-LM German*, Level Three, 2d ed., Longman Canada, \$6.40
Student Exercise Book for A-LM German, Level Three, 2d ed., Longman Canada, \$2.00

History and Social Science Courses

The following twenty-lesson courses are offered:

History H200
History H201
World Politics WP300
History H301
History H305 (available January 1974)
Man in Society MS400
Economics EN400
History H401
Grade 13 History H501
Grade 13 Economics EN501

The following ten-lesson courses are offered:

History H203x
History H205x

A mature student may request enrolment in any of the Year-3 or Year-4 courses—History H301, History H305 (available January 1974), History H401, World Politics WP300, Economics EN400, Man in Society MS400—even if he has done no work in first- or second-year History.

History H200

Two centuries of Britain's history—from 1760 to the present—are surveyed in this twenty-lesson course: the rise and fall of Britain's empire, the Industrial Revolution and its far-reaching effects, the struggle for political and social rights, the role of Britons in two world wars, the rise of the Commonwealth, and Britain's technological development. This course is similar to the Year-1 History course offered in many schools of the province. The texts are *The British People, 1760-1902* and *Britain in the Modern World: The Twentieth Century*.

History H201

This course surveys many of the dramatic events and personalities in Canadian and American history, from the turn of the century to recent times. Included is the story of Canada's economic development in the early 1900's, Canada in World War I, the "roaring twenties", the Depression of the thirties, Canada in World War II, and post-war North America. Some aspects of the operation of Canadian government are also examined. *Decisive Decades* and *Canadian Democracy at Work* are the texts.

Note: Students enrolled in H201 may not take H205x.

History H203x

What are the key public issues in Canada today? Foreign ownership? National unity? Unemployment? Immigration? How does one begin to understand such important issues? This ten-lesson course offers one approach. It focuses on one issue—Canadian national unity—in both its contemporary (the FLQ crisis, 1970) and historical (the Riel Rebellions) settings. The skills developed in analysing the issue of national unity should enable the student to examine other issues independently. There is no textbook with this course; the readings have been compiled from pamphlets, articles, and newspaper clippings.

History H205x

There is an old saying that "in life two things are certain: death and taxes." To this statement we could add a third certainty: government. Government influences all of us. But how much do you know about how Canada is governed? This ten-lesson course examines the fundamentals of our federal system and provides a valuable base of information for understanding its operation. *Canadian Democracy at Work* is the basic textbook. Photographs and additional information are provided in each lesson to supplement the prescribed text.

Note: Students enrolled in H205x may not take H201.

World Politics WP300

This course discusses the organization of government; aspects of Nazism, communism, and democracy; the role of the individual in government; the "third world"; the origins and impact of war; the meaning and growth of nationalism and internationalism; and future prospects. Readings and illustrations are included in the lessons. The text is *Inside World Politics*.

History H301

Unit I examines the ancient history of Greece and Rome. Unit II focuses on some of the mainstreams of medieval history—feudalism, the influence of Roman Catholicism, the conduct of business, the Renaissance, the growth of Protestantism, and the beginnings of the modern nation state. Pamphlets, documents, and illustrations supplement the text *The Enduring Past*.

Note: Students enrolled in H301 may not take H305.

History H305 (available January 1974)

Our heritage from the medieval and Renaissance worlds is the theme of this course which examines various aspects of Western European development from the declining years of the Roman Empire to the era of the Renaissance and Reformation, covering the centuries from approximately 400 A.D. to 1600 A.D. Studies will include the interior

and exterior forces that shaped European development during this turbulent period of history and an examination of the great events and institutions of medieval and Renaissance Europe. The texts are *The Emergence of Europe, Civilization in Perspective*, and *Renaissance and Reformation* (Unit I of *Europe and the Modern World*).

Note: Students enrolled in History H305 may not take History H301.

Man in Society MS400

The aim of this course is to lead you to an understanding of some of the institutions and forces in contemporary life, to enable you to make an assessment of your relationship to the society in which you live, and to provide some understanding of other societies. The character of man, his aggressiveness, his prejudices, his culture, his roles, and his 'races' are examined in the first ten lessons. The last half of the course studies the problems of man and the institutions of our own society and the impact of technology on the modern world which is turning our planet into a "global village". The text is *A Social View of Man*.

Economics EN400

Should the Canadian economy be merged with that of the United States, or made more independent? What causes inflation and unemployment? Can the cycle of ups and downs in the economy be modified? Would Canada's economic position improve with a larger population? Does Canada need a more generous system of social security or is the present system too generous? Through an examination of these and other important questions, the student gains knowledge of the principles of modern economics. The texts are *Economics: A Search for Patterns* and *Contemporary Canada: Readings in Economics*.

History H401

This course considers the significance of individuals, ideas, events, and institutions in the history of the world from the 17th century to the present day. Personalities such as Voltaire, Napoleon, Bismarck, Churchill, and Mao Tse-Tung, ideas such as socialism, Marxism, Naziism, and democracy, events such as the French and Russian revolutions, wars, both "hot and cold", and institutions such as the United Nations form the core of the study. Asian issues and the problems of the "third world" are also discussed. Pamphlets and documentary readings supplement the text *Modern Perspectives*.

Grade 13 History H501

Many of the main issues of American and Canadian history from the time of the organization of government to the present day are examined in this course. Topics in United States history include the revolution and the constitution, Jacksonian democracy and American territorial expansion, the Civil War, and American foreign policy to 1970. Canadian topics cover British North America prior to 1867, Confederation, Macdonald, Laurier and Borden, Canada in the 1920's and 1930's, and post-World War II political and domestic developments. Picture and reading inserts complement the text of the lessons.

Prerequisites: History H301 or History H305, or World Politics WP300, or History H401, or Economics EN400, or equivalent

The texts are: *The North American Nations* (McInnis), J. M. Dent and Sons, \$4.15

Canada and the United States (Cook and McNaught), Clarke, Irwin, \$5.25

Two Democracies (Farr, Moir, and Mealing), McGraw-Hill Ryerson, \$4.75

Grade 13 Economics EN501

This is a course in economic reasoning which offers not solutions but tools and methods for the analysis of economic problems. The course concentrates on problems of economic policy that affect economic growth, stability, and security. Pure economic theory is avoided as much as possible in order to focus on the *reality* of what is happening today – to see economics as one aspect of our present social structure and to realize the interrelation of economic problems, social issues, and political decisions. Students are encouraged to defend *reasoned* positions on current controversial public policy issues.

Although this course requires no specific prerequisite, the student should have completed a Year-4 course in either History, Economics, or English, or have some equivalent educational background to provide him with the reading and writing skills necessary for its successful completion.

The texts are: *The World of Economics* (Macdonald, Silk, and Saunders), McGraw-Hill Ryerson, \$6.95
Canadian Economic Issues: Introductory Readings (Edited by I.-D. Pal), Macmillan of Canada, \$5.95 (paperback)

Latin and Classical Studies Courses

The following courses are offered:

Latin L201

Latin L301

Classical Studies L312x

Latin L401

Grade 13 Latin L521

Grade 13 Latin L522

Each of the courses in Latin has twenty lessons. With the exception of L312x, each is valued as one credit. No knowledge of Latin is necessary for enrolment in the ten-lesson course in Classical Studies.

Latin L201

No previous knowledge of Latin is required for enrolment in this course. It teaches the student to read simple passages in the original language and gives considerable practice in the recognition of word roots. Word study improves the student's facility with the English language. The course is based on *Latin for Canadian Schools: A New Approach* and on a resource text describing life in ancient Rome. It provides essential preparation for further study in the classics to Grade 13. A recording that demonstrates pronunciation and oral reading is available.

Latin L301

This course offers the student an opportunity to become familiar with Latin forms on which at least sixty per cent of the words in the English language are built. With the background of Latin L201 or its equivalent, the student is ready to read more challenging passages in the original language. In addition to the textbook *Latin for Canadian Schools: A New Approach*, there is a resource text, *S.P.Q.R.*, and a pocket-size reader. Practice in pronunciation and assistance with oral reading is provided by means of a record.

Prerequisite: Latin L201, or equivalent

Classical Studies L312x

This course explores our cultural heritage through a study of the past. The student is encouraged to explore with the archaeologist some of the ancient sites of Greece, Crete, and Egypt. The course provides an introduction to the origins of language, to Latin for beginners, and to Latin in English usage. It offers an opportunity for imaginative and creative work, and is appropriate for both language and non-language students.

No prerequisite

Latin L401

The object of this course is to give the student an opportunity to read more widely in the original language and to advance his knowledge of its structure. Short reading selections introduce him to the masters of Latin prose and poetry. The emphasis of this course is placed on reading Latin literature for comprehension and for a better understanding of the daily life and social customs of the ancient Romans. The resource booklet supplied with the course is intended to stimulate interest in the extensive archaeological research now being carried on throughout many parts of the Mediterranean world.

Prerequisite: Latin L301, or equivalent

Grade 13 Latin L521

This course, entitled *A Survey of Classical Literature*, includes selections from Cicero, Caesar, Virgil, Catullus, and Horace which are read in the original as well as in translation. It presents familiar passages from the Old and New Testaments and from Latin poems written in the Middle Ages, primarily the Carmina Burana collection. Emphasis is placed on reading for comprehension, for content, and for an appreciation of the culture and life styles of the times. Language structure is reviewed and related to the literature.

Prerequisite: Latin L401, or equivalent

The texts are: *A New Latin Reader* (M.P.O. Morford), Longman Canada, \$3.05
Cicero on Himself (N. Fullwood), Clarke, Irwin, \$1.50
Latin Poetry Selections for Grade 13 (Breslove et al.), Thomas Nelson, \$3.95
Our Latin Legacy, Book 2, Part 2 (Taylor, Prentice, and Maynard), Clarke, Irwin, \$3.75

Mathematics Courses

Grade 13 Latin L522

This course presents a new approach to Grade 13 Latin. It focuses attention on the literary merits of classical literature. Guidance and direction in the study of classical literature is given through a critical appraisal of selected writings, which include Cicero's *Verrine Orations* and the Dido-Aeneas episode from Virgil's *Aeneid*. The student also learns to appreciate the poetry and prose of other writers of classical times by reading some of their works in translation and some of them in the original language. Language structure, or basic grammar, is reviewed and practised whenever it is useful to the student for the comprehension of reading selections.

Prerequisite: Latin L401, or equivalent

The texts are: *Latin Prose Selections for Grade 13* (Breslove *et al.*), Thomas Nelson, \$3.95

Latin Poetry Selections for Grade 13 (Breslove *et al.*), Thomas Nelson, \$3.95

The Roman Way (Edith Hamilton), George J. McLeod, \$1.60

Latin Composition for Grade 13 (Breslove), Gage Educational Publishing, \$4.00, or *Our Latin Legacy*, Book 2, Part 2 (Taylor, Prentice, and Maynard), Clarke, Irwin, \$3.75

The three series of courses available in this subject area are described on the following pages.

1. Series A

Mathematics M111x – Basic Course in Modern Approach Mathematics

Mathematics M101

Mathematics M201

Mathematics M303

Mathematics M403

Grade 13 Mathematics M511 – Mathematics of Investment

Grade 13 Mathematics M521 – Relations and Functions

Grade 13 Mathematics M522 – Calculus

Grade 13 Mathematics M523 – Algebra

Series A is designed for students who wish one or more of the following:

- a) preparation for the study of mathematics in Grade 13 and possibly beyond
- b) courses that are theoretical rather than practical
- c) insight into the modern approach in mathematics
- d) challenging courses designed for students who are strong in mathematics

The student who has studied traditional mathematics in secondary school and who wishes to study courses in Series A requiring a knowledge of modern mathematics should begin by selecting Mathematics M111x. Mathematics M511 and Mathematics M522 do not require a knowledge of modern mathematics.

Mathematics M111x

This ten-lesson course presents some of the basic aspects of modern approach mathematics, either for personal interest or as the basis for further study in this series at a higher level. The topics dealt with include basic sets and set notation, operations with integers, rationals, number properties, number lines, set builders, ordered pairs, Cartesian products, and Venn diagrams.

Mathematics M101

This is the beginning of the series in modern approach mathematics leading to study of Grade 13 work. It covers the following topics: basic algebra from a modern viewpoint, number properties, and an introduction to geometry.

Mathematics M201

Topics dealt with in Mathematics M101 are re-examined and enlarged. Other topics studied include: relations, systems of equations, and geometry.

Prerequisite: Mathematics M101, or equivalent

Mathematics M303

Topics dealt with in Mathematics M201 are re-examined and expanded. Other topics include: real numbers, linear equations, trigonometry, analytic geometry, and ratio.

Prerequisite: Mathematics M201, or equivalent

Mathematics M403

This course prepares a student for Grade 13 work. Topics from Mathematics M303 are further developed and the following topics introduced: relations, functions, and quadratic equations.

Prerequisite: Mathematics M303, or equivalent

Grade 13 Mathematics M511 Mathematics of Investment

This is an intensive course which will be of interest to students who wish to learn the fundamentals of financial calculations involved in banking, annuity or bond purchases, home financing, and consumer credit in general. Topics include: calculative devices, interest and discount, annuities, bonds, mortgages, monthly payment plans for houses and automobiles, depreciation, capitalization, borrowing of money, and calculation of interest rate. A knowledge of modern approach mathematics is not required for this course.

Prerequisite: Mathematics M403 or Mathematics M400, or equivalent

No textbook is required.

Grade 13 Mathematics M521 Relations and Functions

Earlier work on functions and relations is enlarged upon with emphasis on the unifying concept of mapping. Topics include: notation, classification and properties of functions, sequences and series, compound interest, annuities, installment buying and consumer credit, trigonometry, definition and discussion of conics, and plane transformations and their application to second degree relations.

Prerequisite: Mathematics M403, or equivalent

No textbook is required.

Grade 13 Mathematics M522 Calculus

Topics studied include: an intuitive discussion of a limit; slopes and rates of change; derivatives, including the derivative of a product and quotient; chain rule; applications to motion; maximum and minimum problems; functions with given derivative; indefinite integral; areas and definite integral; volumes of revolution; polar co-ordinates and complex numbers. A knowledge of modern approach mathematics is not required for this course.

Prerequisite: Mathematics M403 or Mathematics M400, or equivalent of either

The text is *Elements of Modern Mathematics: Calculus* (Del Grande *et al.*), Gage Educational Publishing, \$5.90

Grade 13 Mathematics M523 Algebra

The topics covered are: set theory, principles of counting, permutations and combinations, mathematical induction; the binomial theorem, probability, vectors with geometrical and physical applications, vectors and the Cartesian co-ordinate system, and matrices used to solve equations.

Prerequisite: Mathematics M403, or equivalent

The text is *Algebra 13* (Coleman *et al.*), 1966 ed., Gage Educational Publishing, \$6.75

2. Series B

Mathematics M100

Mathematics M200

Mathematics M300

Mathematics M400

Grade 13 Mathematics M511 Mathematics of Investment

Grade 13 Mathematics M522 Calculus

Series B is designed for students who wish one or more of the following:

- a) mathematical background of a general nature but not preparation for university mathematics
- b) preparation for a trade-training or apprenticeship program
- c) upgrading in technical mathematics
- d) knowledge of algebra and trigonometry
- e) preparation for post-secondary courses, admission to which does not require a background in modern mathematics
- f) preparation for the Grade 13 courses Mathematics of Investment M511 or Calculus M522

Mathematics M100

This course should appeal to individuals who have completed at least elementary school arithmetic and who wish to apply their knowledge to the world of science and

industry. Basic arithmetic is reviewed and applied to the study of the measurement of distance, area, and volume in both the English and metric systems. The course concludes with an introduction to algebra.

Mathematics M200

This course is of particular interest to tradesmen who wish to acquire some knowledge of technical mathematics. Basic algebra is reviewed, and work on formulas and word problems is included. Additional topics are: graphing, shop calculations, gear and pulley speeds, basic geometry, mensuration, and introduction to trigonometry.

Mathematics M300

Students selecting this course should have a working knowledge of basic algebra. The algebra covered in M200 is reviewed and extended to include more difficult problems. Additional topics are: ratio and proportion; variation; logarithms; slide rule; area and volume of cylinders, cones, pyramids, prisms, and spheres.

Mathematics M400

Students who undertake this course must have completed a mathematics course that included algebra. The following topics are presented: introduction to the number system; arithmetic of irrational numbers; quadratic equations and their application to problems; functions; relations with emphasis on graphing; basic trigonometry extended to include the solution of oblique triangles; elements of statics, including vectors, moments, composition and resolution of forces, centre of gravity and friction.

Grade 13 Mathematics M511 Mathematics of Investment

See description on page 30

Grade 13 Mathematics M522 Calculus

See description on page 30

3. Series C

Mathematics M160 Basic Arithmetic

Mathematics M250

Mathematics M350

Mathematics M450

Series C is designed for students who wish one or more of the following:

- a) better understanding of arithmetic
- b) more skill in computations
- c) knowledge of how mathematics is used in our daily lives particularly in business transactions
- d) upgrading in commercial mathematics
- e) standing in mathematics up to and including Year-4 but not beyond
- f) courses adapted to students who find mathematics difficult

Note: Students wishing to prepare for post-secondary accountancy training should study in Series A or Series B.

Mathematics M160 Basic Arithmetic

This course has been prepared to allow adults to “go back to the beginning” in mathematics. There are careful explanations and numerous examples of the addition, subtraction, multiplication, and division of whole numbers, fractions, and decimals. The percentage form and its uses are studied in detail. Considerable practice is given in each topic. Completion of this course provides background for further studies in mathematics at the secondary school level.

Mathematics M250

This course could be undertaken by a student who knows how to work with whole numbers, fractions, decimals, and percentages. The aim is to improve accuracy and speed in computations and to develop the ability to solve certain types of practical problems. Business topics include: interest, discount, banking, invoicing, profit, and loss.

Prerequisite: Mathematics M160, or equivalent

Mathematics M350

Topics dealt with include: buying an automobile, instalment buying and selling, buying and selling real estate, insurance (life, fire, and property), buying and selling on commission, preparation of payrolls, and practical measurements.

Prerequisite: a second-year course in secondary school mathematics

Mathematics M450

The course is concerned with these topics: income tax procedure, compound interest, buying and selling stocks and bonds, foreign exchange, excise taxes and customs duties, an introduction to computers, and an introduction to statistics.

Prerequisite: a second-year course in secondary school mathematics

Science Courses

The following twenty-lesson courses are offered:

General Science:

Science SC101

Science SC201

Science SC203

Geology:

Geology GL300

Physics:

Physics P300

Physics P301

Grade 13 Physics P501

Chemistry:

Chemistry C400

Chemistry C401

Grade 13 Chemistry C501

Biology:

Biology BY400

Grade 13 Biology BY501

Although some previous work in secondary school science is a definite advantage for students wishing to undertake third- or fourth-year courses, students who have no such previous training may request enrolment in any of these courses – Geology GL300, Physics P300, Physics P301, Chemistry C400, Chemistry C401, Biology BY400.

For many of the science courses, kits containing laboratory equipment and chemicals are lent to students to enable them to perform experiments. Biological specimens are supplied for observational work. (Kits containing chemicals cannot be supplied to students living outside Canada or to persons living at points in Canada serviced only by airmail.)

Science SC101

The first ten lessons of this course introduce the student to the science of biology. He studies the way in which plant and animal cells are built and the way in which they perform their functions; the structure and life history of animals that lack backbones (invertebrates); the structure and life history of animals that have backbones (vertebrates); the structure and function of some important organ systems in man. The last ten lessons of the course introduce the student to the science of physics. He studies sound – how it originates, travels and is measured; pressure transmission in liquids and gases; how temperature is measured; and, finally, some properties of solids, liquids, and gases.

Science SC201

This second-year course continues the study of biology and physical science. Topics in the biology section include: the structure and life history of flowering plants; the structure and life history of non-flowering plants; an introduction to the study of heredity; an introduction to the study of the relationship of plants and animals to their environment. Topics in the physics section include: force, work, energy and power, heat, light and electricity. Chemical energy is studied in the final lesson.

Science SC203

This second-year course which concentrates on physical science will be of interest to students who plan careers in manufacturing and industry. It provides experience in performing scientific experiments and training in making scientific observations and drawing conclusions. Topics studied in physics are: force, energy, power, heat and its transfer, lubrication, sound, electrostatics, and current electricity. Topics studied in chemistry are: the composition of matter, mixtures, solutions, combustion and fire-fighting, and corrosion.

Geology GL300

This introductory course emphasizes the practical aspects of geologic study – the interpretation of geological maps; the examination of rock, mineral, and fossil specimens; the testing of rock samples in the field; and the practice of making geologic observations. The course begins with a study of the work of the geologist and the methods he uses in the field. It then explores the earth around us, above us, and below us; materials of the earth's crust; internal geologic processes and their consequences; the earth's external energy at work; and time and geology. The geologic structure, landscape features, and natural resources of Canada, and of Ontario in particular, are examined and discussed.

Physics P300

This course will be of interest to students whose objectives do not require them to go on to more advanced work in physics. Topics studied are: measurement and use of measuring instruments, mechanics of fluids (volume, density, pressure), simple machines, motion and laws of motion (speed, acceleration, force, friction, etc.), electricity and magnetism, light (reflection, refraction, illumination, polarization), heat (changes of state, heat of fusion, heat of vaporization). Practical applications of all topics studied are considered wherever feasible.

Physics P301

This course teaches the fundamental principles and modern developments of physics and prepares a student for Grade 13 Physics P501. Topics studied are: Mechanics – measurement, motion and force, work, energy and power; Vibrations and Wave Motions – wave phenomena, sound, light; Electricity – electrostatics, current electricity, electromagnetism; Modern Physics – electronics, atomic structure, nuclear physics.

Grade 13 Physics P501

This course presents physics not as the study of a body of facts but as a continuing process by which man seeks to understand the nature of the physical world. Topics studied are: Time, Space and Motion – fundamentals of measurement, functions, motion along a straight-line path, motion in space; Optics and Waves – how light behaves, the particle model of light, waves propagated in two dimensions, interference; Mechanics – law of inertia and Newton's law, motion in the earth's gravitational field, universal gravitation law and the solar system, momentum and the conservation of momentum, work and kinetic energy, potential energy; Electricity and Atomic Structure – electric forces and electric charges; energy and motion of charges in electric fields, electric field and electric potential, the electromagnetic spectrum, Rutherford's model of the atom, photons, matter waves, energy levels, energy levels of hydrogen.

Prerequisite: Physics P301, or equivalent

The texts are: *PSSC: Physics*, 1965 ed., D.C. Heath, \$8.65 plus \$.90 postage and handling
PSSC: Laboratory Guide, 1965 ed., D.C. Heath, \$3.30 plus \$.65 postage and handling

Chemistry C400

This is a non-intensive course in chemistry. (A student who wishes to prepare for Grade 13 Chemistry should choose Chemistry C401.) The course is an introductory course in chemistry and includes experiments to be performed by the student. Topics studied are: characteristics, states, properties and classification of matter; the structure of the atom; chemical combinations; chemical reactions; chemical equations; solutions; ionization; acids, bases and salts; food chemistry; air pollution; water resources and impurities.

Chemistry C401

This course provides an introduction to the experimental study of chemistry and the language of the subject. Emphasis is placed on the nature of elements and compounds and the reactions they undergo. The following topics are covered: theories of the structure of individual atoms and aggregates of atoms; elements and compounds; the formation of ions; and the periodic classification of elements. This course prepares the student for Grade 13 Chemistry.

Grade 13 Chemistry C501

The emphasis in this senior course is on understanding the principles of chemistry rather than on acquiring factual knowledge. Topics studied include: development of the atomic theory; principles of chemical reaction; the gas state; kinetic-molecular theory; solutions; periodic classification; atomic structure; historical development and orbital model; chemical bonding; energy in chemical reactions; rates of reactions; qualitative and quantitative aspects of equilibrium; aqueous acids and bases; oxidation and reduction; molecular structure; bonding in solids, liquids, and gases; organic chemistry; transition elements; radioactivity.

Prerequisite: Chemistry C401, or equivalent

The text is *Chemistry: Experiments and Principles*, 1968 ed. (O'Connor *et al.*), D.C. Heath, \$8.65 plus \$.90 postage and handling

Biology BY400

The twenty lessons of this course provide an opportunity to study the following topics: possible origins of life; where life occurs; the wide variation in the kinds of living things; the structure and life cycles of viruses, bacteria, algae, fungi, flowering plants, protozoans, flatworms, insects, fish, amphibians, reptiles and mammals. Information related to the science of heredity, human genetics, ecology, pesticides and pollution, population explosions, and some of the problems of space travel is also presented. Students who enrol are required to do dissections of preserved specimens, including a fish and a mammal (white rat).

Grade 13 Biology BY501

In this advanced course in biology, the following topics are studied in depth: the basic chemistry of cell activity; organic molecules and chemical syntheses; energy changes in living things involving ADP and ATP; the importance of DNA and RNA in the genetic code; the structure and function of many of the organs and organ systems in plants and animals, including man. Additional topics include: principles of classification; population control; Mendelian genetics; the reproduction and development of organisms; the evidence for evolution and the mechanics by which it is achieved.

Prerequisite: Chemistry C401 or Biology BY400, or equivalent of either

The text is *Biological Science: Principles and Patterns of Life*, rev. ed. (Galbraith and Wilson), Holt, Rinehart and Winston, \$8.95

Elementary
School
Correspondence
Courses

Elementary School Courses

Elementary School Correspondence Courses For Children Under Sixteen Years of Age

Elementary school correspondence courses in Grades 1 to 8 are available for children who are unable to attend school. They are offered in English for English-speaking students and in French and English for French-speaking students.

A child living in Ontario who is six years of age or over but under the age of sixteen, and who is unable to attend school for a period of three months or more, is eligible for enrolment. A child normally resident in Ontario, but living temporarily outside Canada and unable to attend a school in which the Ontario curriculum is taught, is eligible for enrolment. Since enrolment of a child living outside Canada cannot be continued indefinitely, eligibility for enrolment will be reconsidered when a request is made for lessons for a new grade. Absence for a period in excess of three years can rarely be regarded as temporary absence from the province and used as a reason for continued enrolment.

A child may begin a course at any time of the school year. If he is in good health, he should spend as much time on his studies each day as he would if he were attending school. By so doing, he will be able to keep up with the daily assignments and complete the work of a whole grade in a year. When he completes the grade satisfactorily, he earns a certificate of promotion. Pupils living in Ontario are expected to take a vacation in July and August as they would if attending school.

Parents wishing to apply for elementary school enrolment for a child under sixteen years of age should complete Form A (or Form B if the child is French-speaking) and return it, together with the child's last school report and a doctor's certificate if the child is not well enough to attend school, or a recommendation for enrolment from the senior educational officer for the area if distance is the reason for not attending school. The certificate or recommendation must state the reason for non-attendance and the probable duration of the child's absence from school. No certificate or recommendation is required for children going overseas.

There is no fee for any of the elementary school courses. Lessons are supplied and corrected free of charge. Answer paper is provided free to all pupils. Textbooks are lent free of charge. Pupils must return the books in good condition when they complete or discontinue the courses for which the books have been lent.

A parent applying for a correspondence course for a child temporarily resident outside Canada must give the name and address of a person in Ontario who will act as liaison and assume the responsibility of forwarding books and lessons. All material from this office is addressed to the liaison.

Applicants should instruct the liaison to rewrap it, print on it the pupil's foreign address and his own return address, prepare a Customs Declaration, and pay sufficient postage to carry the material to its foreign destination.

Pupils living in Ontario and enrolled in correspondence courses must submit lessons for correction. Those living outside Canada are advised to do so if at all possible. Although mailing delays to and from distant locations may take a good deal of the value from teachers' comments and corrections, children gain a certain satisfaction and encouragement from personal contact with a teacher and from winning recognition for their work. It is particularly important that students in Grades 7 and 8 submit their completed lessons for correction. Parents should note that any lesson sent in for marking must contain all assignments in every subject.

Courses for Adults who have not had the Opportunity to Complete Elementary School

English E160

This is a basic course in English grammar and composition. It makes use of a variety of textbooks, including a speller, selected novels, and language workbooks. Vocabulary study through the use of a dictionary is emphasized. Completion of this course provides background for further study of English at the secondary school level.

Mathematics M160

This course has been prepared to allow adults to "go back to the beginning of mathematics". Since arithmetic is the foundation of mathematics, the course involves practice in addition, subtraction, multiplication, and division of whole numbers, fractions, and decimals. The percentage form and its uses are studied in detail. Completion of this course provides background for further studies in mathematics at the secondary school level.

An applicant wishing to enrol in one or both of these courses should complete Form C and return it to the Correspondence Courses office.

